A STUDY OF ATTITUDE OF ELEMENTARY PUPIL TEACHERS TOWARDS THE TEACHING PROFESSION AND THE TEACHER EDUCATION PROGRAMME

Guide

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"SWEETEST THE STRAIN WHEN IN THE SONG,
THE SINNER HAS BEEN LOST."

INTRODUCTION

The greatest 'untrained teacher' who ever lived was Socrates - who might have been too ungainly for the modern classroom.

With his famous words "knowledge is virtue", Socrates implanted in the minds of future generations the importance of teachers for bringing out the best in the individual. Modern society has learned Socrates' lesson well.

In Socrates' days and even in our own country a few generations ago, it was assumed that no special training was really necessary to become a teacher. In fact, a gifted person can be a good teacher at any time if he is limited to one or only a few students. But today in India, because we try to educate all children, the vast number of students have brought new problems.

One of the results of mass education has been the necessity of organizing our schools on various levels generally called grades. Our schools are, therefore, organized like a ladder. One begins at bottom rung, and then proceeds through the grades until one becomes as young man or woman in the last

year of high school. And now that one is looking forward to school teacher, there are two more rungs on that ladder to be reached and to climb.

Of course, each level requires different teaching, a different approach, and specific technique. In order to be professional teacher one will have to study many technical aspects of learning. Under the complexities of our modern society reflected in our schools - it is not enough to want teaching as a career, one must also have the favourable attitudes towards the profession.

But what goes into making a good teacher? Can anyone become one by merely trying? What sort of attitudes must one have?

In short, what kind of attitude one should have and in what way the teacher training programme influences one in producing the favourable attitudes towards his profession.

Despite the difficulties of defining or measuring quality in a teacher, it is obvious that a good teacher should be intelligent, reasonably well educated and possessing positive attitudes towards the profession.

There is no better way of examining the world of teacher than through the 'Attitude' measurement. However, there are still other means of learning more

about teacher giving a battery of various tests which can give one, some insight into ones abilities, interests and potentialities. But one may know the attitudes of the pupil-teachers who are going to enter the profession.

It seems to make no difference, who the observers are, to contain individuals who are outstanding in classroom performances having a kind of motivation in dealing with the teaching situation. Teacher Education Institutions are only too keenly aware of the vast gulf that separates these seemingly - motivated teachers from the rest of the group, some of whom seemed doomed always to mediocre or even incompetent teaching careers. But the good teacher, having been motivated due to favourable attitude towards the profession, shines, long before he had a course in methods.

It would be a fine thing, if we had a tool in selection devices to point out such teachers when they first appear for training. We could then give them some additional polish, deepen their instructive insights, and be confident of their teaching success. Or, if we knew enough about what went into the making of them "best teachers" we might better multiply such experiences (if they, are experimential and not 'basic' or "innate") in the teacher education course.

It is very fruitful to have the understanding of the pupil-teacher as an individual, his behaviours attitudes. Because the job satisfaction is closely related to the positive or negative attitudes that are identified with a given job. There are several questions that must be raised in looking at the teachers' role; How does the trainee view the role of the teachers' training provide opportunity for learning role - appropriate attitude as an aspect of preparation for teaching?

The workers in the field of education have been seeking ways and means for making teachers more effective in the larger community.

There are two distinct elements that give credence to the attitudes of pupil teacher which derives in some measure from feeling of first, low status in a given hierarchy and second, conspicuousness above that of the average person. It is suggested that these two factors interfere with the teachers attitude to respond adequately to the professional and personal situation in which he finds himself.

The other aspect, of this problem, that of the low-status of the teaching profession is part of the larger picture of the academic hostility to education.

Hence, it needs no argument to prove the obvious that the attitudes which impel a person to choose a career have a great bearing on the ultimate quality of his profession, because the fundamental personal element is involved in it. An individual, who takes up teaching because of his attitudes and love it, would certainly prove to be different teacher from a person who has been compelled by circumstances to accept it as his vocation. Of course, there are exceptions to the rule, and it is not very unusual to come across a person who entered the teaching profession after failure in his first love, and still proves a worthy teacher by the most exacting standard because of the influence of training course.

It is easy to observe that students with attitudes unfavourable to certain material learn it with greater difficulty than those whose attitudes are favourable. Many studies have shown a relationship between attitude and information in a given area, suggesting that people acquire most readily facts which are congruent with their views.

Attitudes are, therefore, basic to many educational activities and the ultimate success of any system of education depends largely on the attitude of those who had offered to work it out.

CHAPTER I

HISTORICAL REVIEW

Education is one of the means to achieve the national goals. It is the most modern weapon in the hands of a nation through which one nation can prosper or deteriorates its position. Having the insight almost all the countries of the world soon after attaining the independence evolved their own education system to reach certain aims and objectives. Although they have taken the good points of progressive countries in evolving their own system but never followed them blindly. They moulded, framed and organised to suit their own country's needs. While planning they exploited their own resources and put forth before the world as a new pattern or a system of education. We are taken aback to see their success within the short period to such an extent that led them to compete in all respects with the progressive countries.

History tells us that their success and the reason for their rapid progress no doubt lies with

planned education system but also lies to a greater extent with the attitudes of their teachers who are the real backbone of the organisation.

They took education as first and basic factor on which the country's development in all sides of its phase depends upon. They visualized the strength and power vested in education and the teacher. Whatever they wanted to have they planned through education. And the teachers who worked it out and succeeded. While organising their system they have thorough knowledge of their goals to be achieved: What are their resources? What their needs are? And what kind of teachers they want and what kind of organisation should they have for teachers so that the goals may be achieved as early as possible.

This insight and deep thinking provoked them to think to develop the educational system and teachers preparation programme suitable to their countries and resources they possess.

Take the examples of U.S.S.R., Germany, Turkey, and Japan. All these countries are now competent enough to stand in the rank of countries who have progressed so far as education is concerned, though they were in dark as long as 1918.

Education after independence

It is true that no education system in the world is faulty or wrong but its success depends upon the implementation part, which is mostly in the hands of the teachers. In these countries mentioned above, the teachers work with a military spirit and missionary zeal. This is the most important factor which lead these countries to success.

Unfortunately, Indian leaders never gave a serious thought to evolve their educational system for the country. They country was and is suffering for want of educational system of their own which can satisfy their needs and suitable to their condition. In brief India was and is in need of radical and overall change in the prevailing system of education. It is the reason why we failed and are still suffering, and facing the same or more challenging difficulties which we had before independence.

Setback of Elementary Education

We can straightaway accept that we have not given the weightage to education except few patches of recommendation as University Education Commission, Secondary Education Commission and Basic Education in

addition to the then existing system of education.

This is how we have tried to confuse the common person to root out his dissatisfaction. How one can reason the relationship between the Elementary (Basic Education), Secondary Education and The University which are unsequencely connected with one another keeping them separate in ladder of education.

Out of which the (Basic Education) elementary education is left to the fancy of the followers of Gandhi, no proper patronage by the Educationist is given to flourish it. This is why the Basic Education is almost dead unwept, unsung and unheard and remained only on signboards.

This is the reason, it is rightly said that the elementary education in India is the weakest link of all in the educational ladder of the country.

Present condition and popular opinion

At present, the elementary education and the elementary school teachers are the problems under the discussion now a days among the various strata of the society in the country. Each and every one, educationists, administrators, businessmen and even laymen of the society speak about the inefficiency of the

elementary school teachers and their ineffective teaching.

In spite of their different views regarding this problem, all of them agree to the point that the elementary-school-teachers are not doing their job-service upto the mark as the society expects. Society expects the teachers to perform the duty of preparing the young generation in their plastic age for the democratic way of life and to survive efficiently in the growing complexity of life and social order.

Education Department is doing its best by raising the standard of admission and introducing the two years' duration course. Moreover, efforts are also being made to select the candidates for training having good academic qualifications undergone certain prescribed test specially prepared for admission to this course.

Then it is certainly unreasonable to expect the necessary efficiency in these pupil-teachers selected for training after following all these procedures.

On the side of these candidates one can say that these trainees applied for this course with complete knowledge about the status of the teacher in the society and salary they would receive in due course after their training. This clearly indicates that these trainees

are having favourable attitudes toward the profession of teaching.

On the practical side, however, the things are not going on well in the schools as it is expected. It seems that the all these efforts are not giving substantial results and practical solution to the problem under the question to root out the cause and eradicate the deficiency.

Therefore, the development of desirable attitude through the proper education and training has now become far more important than at any time in the past.

CHAPTER II

NATURE AND MEASUREMENT OF ATTITUDES

What is attitude -

The concept of attitude does not refer to any one set specific act or response of an individual, but is an abstraction from a large number of related acts or responses. In general terms, a latent variable is used to describe the consistency or covariation of a number of different responses to stimule of the same class. Krech and Crutchfied (1948, p.152) views attitude as "an enduring organisation of emotional, motivational, perceptual, and cognitive process, with respect to some aspect of the individuals' world". An enduring organisation of psychological processes terms to imply a consistency of response patterns. For Doob (1948) an attitude refers to an implicit response that is both anticipatory and mediating in reference to patterns, and that is considered socially significant in the individual's society. Overt responses are consistent in that they are mediated by the implicit response.

Fuson (1942) defines an attitude as the probability of occurrence of a defined behaviour in a defined situation. Allport (1935, p.810) after a careful survey of

the various senses in which it has been used, proposes the definition, "An attitude is a mental and neural state of readiness, organised through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related".

It is apparent from these definitions that the concept of attitude implies a consistency of predictability of responses. An attitude governs, or mediates, or predicts, or is evidenced by variety of responses to some specified set of social objects or situation. Compbell (1950, p.31) has summarized this view neatly in presenting an operational definition of attitude "An individual's social attitude is a (enduring) syndrome of response consistency with regard to (set of) social objects".

Nature of attitude

Original drives are overlaid by social experiences organised into attitudinal systems. As the child acquires "human nature" which will equip him for life in a society of human beings, the area of his relevant experience expands and the attitudinal patterns become incorporated in his personality.

Attitude will be modified, through learning, in accordance with his own goals and drives. The growth

and development of attitudes involves the integration of numerous specific responses which determine the entire adjustment of the individual. Attitudes are evolved from association with family group, with children in his play and school group, and in general through social-psychological interaction. As an adult, occupation, and the responsibilities of parenthood are important in attitude development. But the fact that attitudes do change accounts for social innovation, social conflicts and social changes.

Brief mention should be made of a distinction commonly made between attitude and opinion. An opinion is a belief that one holds about some object in his environment. It differs from attitude in being relatively free of emotion it lacks the affective component control to attitude. The cognitive component or element of knowledge is prominent in opinion.

An other distinction of some importance is that between attitudes and value systems (Katz and Stoptland, 1959). Attitudes are thought of as pertaining to a single object, even though that object may be an abstract one. Value systems, on the other hand, are orientations toward whole classes of objects. Individual attitudes are frequently organized into a value system. Attitudes are often functional, in the sense that they may be emotionally satisfying for the individual.

In a broader sense, an individual's entire personality structure and hence his behaviour may be thought of as organised around a central value system comprised of many related attitudes. Thus, the concept of attitude is useful in studying certain broad factors in a given society that mould attitude and behaviour in particular direction.

Measurement of attitudes

Attitude measurement is a highly technical process that will not be treated intensively here. Instead, some general indication of the variety of means by which attitudes might be measured will be indicated.

Typically, attitudes are assessed by series of carefully constructed, standardized statements, although more indirect techniques are sometimes used. The respondent is given a set of fixed responses from which he must choose, such as by specifying agree or disagree. Usually statements are assigned scale values in some fashion, so that a quantitative index of the attitude may be obtained. Basically, Thurstone, and Likert type are the two different methods of scoring such statements which are commonly used either in toto or modifying them.

In other words, the concept of attitudes involves, as we have seen, the notion of two extremes between which

individuals vary - extremes of favouring or opposing something. That attitudes should be measured by some sort of scale, therefore, is a most logical consequence. Here our present concern is with the applicability of the rigorous scale technique to the measurement of attitude.

One of the first things to do in constructing a real attitude scale is to make sure of an order in which attitudes can be arranged from one point to another. No scale can really be called a scale unless one can tell from a given attitude that an individual will maintain every attitude falling to the right or to the left of that point (depending on how the scale is constructed). No one could use a ruler on which he could not tell whether the point marked (7) would fall between (6) and (8) or whether it would have a capricious preference for some other points on the instrument. These reactions purport to "measure" a person's position on controversial issues or problems or the degree to which existing social institutions are approved.

CHAPTER III

THE PROBLEM

Need and Importance

The present challenge to the nation has focused our attention to the need of doing our utmost with utmost efficiency. The country demands a number of things from its teachers also. Teachers are to be punctual, hard working, should be cooperative, should have clear understanding of the task and above all should develop a positive attitude towards profession and to the nation. There are of course many factors that come in the way of improving the teaching in a satisfactory way. That is, however, unfortunate as Newman says "An educational system without the personal influence of teacher upon pupils is an arctic winter.

When the pupil-teacher arrives in a training institution he has a more or less fixed set of mind. His attitude to many problems and things is very often inflexible. We in the training do not do very much to influence the pupil-teachers. We are surely to give them the skills which will make them efficient classroom teachers, but that is not enough. The teachers learn the various tricks of trade like

handling a large class, improving the discipline of the children etc. and yet remain impersonal. What we, however, need is to develop in our pupil-teachers a favourable attitude towards the profession which naturally directs them to motivate in the training programme with a desire to understand the needs of children.

It is, therefore, necessary to study for determining the attitudes that make for successful teaching, and the training programmes that we conduct at present to ascertain their influences in developing the favourable attitudes; such kind of study is highly essential. We have examined whether our present curricula is worthwhile from the point of view of trainees. Are the objectives of teacher training clearly realized and to what extent the influence has been affected? All these problems which stimulated the interest for inquiry.

This kind of inquiry to know the trainees' opinions and sentiments regarding the profession and their training programme which is one of the foremost important in its nature failed to attract the attention to the researcher. Whatever is done it is limited to secondary level only and very few studies throw light on the attitudes of pupil-teachers at Elementary level that too are limited to particular part of the training

programme.

Such an important and tedious problem, which is almost neglected till now by researchers, clearly indicate their hostile attitude towards elementary-teacher education but writer takes pleasure in investigating it in his humble way.

Statement of the Problem

The present study is aimed at evaluating the attitudes of the pupil-teachers towards the profession and the effect of the training in developing the favourable attitudes. Appropriate professional attitudes are the most important single factor in the determination of success in any profession. This is more true of teaching profession because the attitudes of the teacher influences children in their classroom teaching. It is observed very frequently that majority of an trainees are not doing well and satisfied in their training programme due to lack of proper attitude. The teachers' training institution need to take a serious note of such observation and evaluate their programmes to see whether they are achieving this essential objective through their institution.

The Problem

The study will provide a guide for promoting the development of more favourable attitudes and

possible modification of aspects of the training programme and work towards which attitudes are unfavourable. The actual wording of the problem is - "A study of attitudes of elementary pupil-teachers towards the teaching profession and the teacher education programme".

Purposes of the study

The purposes of the study are to:

(1) construct an attitude scale for measuring attitude of elementary pupil-teachers towards the profession and training programme.

(2) Compare the attitudes of Ist year and IInd year trainees.

(3) measure and compare the attitudes, boys and girls of Ist year and IInd year sex-wise and year-wise.

Scope and Limitations

The study is limited to:

(1) the measurement of pupil-teachers of elementary teacher education towards the profession and important aspects of training programmes.

(2) the measurement of the attitudes of pupil teacher of the two training institutions one of which being of boys and other of girls.

Hypotheses

(1) There are differences in the attitude of boys and girls (male and female pupil-teachers) towards teaching profession and training programme of elementary training institutions.

(2) There are also differences in the attitude of Ist year (boys and girls) and IInd year (boys and girls) towards teaching profession and training programmes of elementary training institutions.

CHAPTER IV

METHOD

(a) Sample and Population

Delhi has three institutes which offer training courses for elementary school teachers. Of these two institutions - (1) Government Teacher Training Institution for Men, Alipur, Delhi; and (2) Government Teacher Training Institute for Girls, Darya Ganj, Delhi, are under the financial and administrative control of the Directorate of Education, Delhi Administration. They offer two years' Junior Basic Training Certificate Course having Hindi as a medium of instruction, whereas third training school is run by Jamia Millia Islamia having Urdu as medium of instruction and the syllabus is prescribed by it. Out of them the above-mentioned two institutions one for men and other for girls are selected for the study.

Condition of the institution

Government Teacher Training Institution for Men, is situated in the suburban area of Delhi at Alipur. It has recently shifted to its own newly constructed

spacious modern building and as stated above it runs two years course. There are altogether two classes - one for first year students divided into four sections because this year it raised the admission capacity from 120 to 160 candidates. And the strength of second year student is 113 as admitted according to their maximum intake capacity of 120 candidates. According to data collected it is found that most of the students who sought admission are from rural area possessing Higher Secondary Certificate in IInd Division ranging from 19 to 22 years age.

Although hostel facility is there but it is limited to a maximum number of 50 students. Therefore, most of the students are having their own arrangement.

The institution has good library, highly qualified staff, sufficient furniture and equipped with all the necessary teaching material.

On the contrary, the Teacher Training Institution, Darya Ganj, Delhi, is situated in the heart of the city, Delhi. It has a good building having a beautiful garden along with playground. It is equipped with rich library, experienced and highly qualified staff; healthy traditional atmosphere. Hostel facility is there but majority of the candidates are from Delhi city so very few are benefited by this facility. The

candidates admitted at present are from middle class having the age in between 17 to 19 years - all of them have the certificate of Higher Secondary in IInd Division in addition to this most of them are trained in cutting, tailoring and one third of one having the certificate of typing.

This institution is also having four sections of Ist year and two sections of second year - only five percent (including both boys and girls) are married candidates.

Thus the sample comprises of all the pupil-teachers studying in the Ist year as well as second year during the year 1966-67 of both the institutions mentioned above.

Equal importance to boys and girls in selecting the sample has been given. However, the number of subjects that are actually included in the study fell short. For this shortage the following reasons may be adduced.

(1) The actual number of pupils enrolled in the two institution were short of the maximum intake due to administration and other reasons.

(2) All the pupils enrolled in the institution were not present on the days of administration of the test.

(3) For the purpose of analysis only the pupils responding to all items are included.

The number of subjects that are finally included in the study from the two institutions is given below:

Table 1

Distribution of Subjects according to the Institution

Sl. No.	Institution	Ist Year		IInd Year		Total
		Boys	Girls	Boys	Girls	
1.	Govt. Teachers Training Institution for Men, Alipur.	99	-	69	-	168
2.	Govt. Teachers Training Institution for Girls, Darya Ganj, Delhi.	-	99	-	69	168
	Total	99 + 99 =198		69 + 69=138		336

(b) Construction of the Attitude Scale

The "Likert type" of attitude scale shall be referred to as the "technique of summated ratings", although it is frequently labelled "the method of

internal consistency". It is alleged that the technique of summated ratings requires less labour and at the same time gives equally reliable results.

In this procedure, the scaling of attitudes, involves the following steps:

(1) the collection of a large number of statements or propositions either referring directly to or considered by the experimenter as likely to relate to the object in question.

(2) the applying of these statements to a group of subjects who indicate for each statement their reaction of strongly agree, agree, undecided, disagree; or strongly disagree.

(3) the summation for each individual of responses to all the items, by scoring the above 4, 3, 2, 1 and zero respectively to the positive item and far negative 0, 1, 2, 3 & 4.

(4) the examination of the amount of correlation between each item and the total score.

(5) the elimination of items that fail to correlate to substantial degree with the total score, i.e., that do not hang together with or measure the same thing as the other items in the test.

(6) In this type of scale two methods of scoring have been used. One 'arbitrary' method and another 'sigma method'. Both give the same result and one is as reliable as the other.

The Likert approach is somewhat more pragmatic than the Thurstone so it is used in this study.

Collection of items for the scale

1. Preparation of an inventory:

The attitude inventory was to be prepared on the following areas:

(a) Attitudes in area of social status.
(b) Attitudes in area economic status.
(c) Attitude in area psychological, intellectual, emotional and personality.
(d) Attitude in area of training programme course.

Statements showing the positive as well as negative attitudes impossible number of aspects from the above areas were formulated. Help of the various other similar studies, and the consultation of the colleagues, assisted in preparation of the tentative inventory.

The following table shows the initial number of attitude statements assembled for both the major parts.

1. Attitude inventory towards profession - 70
2. Attitude towards training programme - 90

Total = 160

After scutiny discussion with colleagues and seeking guidance from the experts in the field the inventory was edited and finalized as follows:

Part	Finalized number of statements
1. Attitude statements towards profession	- 52
2. Attitude statements towards training programme	- 56
Total	= 108

The inventory in its final shape was mailed for opinion to twelve experts well known in the field of which nine have responded to and conveyed their valuable suggestions.

In the light of the above inventory was finalized.

2. Administration of the inventory:

The academic year 1966-67 was selected for the study. The administration of the test was done in the month of February 1967 when the first year students know the process and programme of the course and had undergone few of the experience in theory and practice

but the student had not yet the possibility of being significantly affected by the formal training programme. Whereas the second year students have completed their course and leaving the institution after examination which is being held within one month and soon after the result they will be employed as teacher, i.e., the test was administered when all the formal training was completed and the subjects had the maximum possibility of being affected by the programme.

In both the institutions the administration of the test was done by the investigator himself. Administration of the inventory did not present any problem. Because, a day was fixed in advance for administration of the test with the consultation of the principals of the concerned colleges.

The responses were recorded on specially prepared answer sheets designed for objective scoring. The attitude scale consisting of the 20 statements as mentioned above was administered to the pupil-teachers of elementary teachers training under study. The respondents were required to check the statements on the following five categories:

(a) Strongly agree

(b) Agree

(c) Undecided

(d) Disagree, and

(e) Strongly disagree

The categories were scored from 4 to 0 and 0 to 4 for positive and negative statements respectively.

Table 2

Response to the Attitude Inventory for the pupil-teachers of Alipur and Daryaganj 1966-67

Sl. No.	Name of Institution	Total number of students		Number Administered		Number responded		Number	
		1st Yr.	2nd Yr.	1st Yr.	2nd Yr.	1st Yr.	2nd Yr.	1st Yr.	2nd Yr.
1.	Government Teacher Training Institution for Men, Alipur.	153	113	115	78	99	69	16	9
2.	Government Teacher Training Institution for Girls, Darya Ganj.	147	119	121	82	99	69	22	13

Thus, the final scale consisted of 20 statements, 12 positive and 8 negative. These statements were arranged in order, and recorded. The purpose behind re-scoring was that any inconsistant statement, that might have been left undetected may be brought out and eliminated. A check was made and it was found that all these statements did carry 75% or more of pupil-teachers either on negative or on positive side. There is no inconsistant item; and had there been any it would have been eliminated. The item-wise frequency of 336 pupil-teachers had been shown in the table as follows:-

Table 3

Table Showing Frequency Distribution Gain Item-wise

Items	SA		A		U		D		SD	
	B	G	B	G	B	G	B	G	B	G
1.	102	85	56	60	X	11	3	9	7	3
2.	49	25	57	91	18	29	10	15	34	8
3.	15	21	47	33	21	29	47	54	38	31
4.	93	98	63	53	4	8	3	4	5	5
5.	29	9	37	41	11	20	34	67	57	31
6.	59	39	84	92	16	29	6	7	3	X
7.	141	129	32	34	3	2	X	X	2	3
8.	6	5	7	3	8	10	34	49	113	101
9.	10	11	42	62	48	59	48	30	20	6
10.	115	115	48	48	3	3	1	1	1	1
11.	5	10	15	34	5	24	59	74	84	25
12.	6	5	38	26	46	46	38	60	40	31
13.	77	87	74	63	6	12	9	4	2	2
14.	77	87	8	5	2	6	33	50	119	106
15.	25	10	84	85	25	51	27	15	7	7
16.	50	44	79	97	16	16	17	11	6	X
17.	47	26	63	69	13	11	28	35	17	17
18.	76	78	73	82	7	2	6	14	6	2
19.	61	31	80	46	12	50	12	35	3	6
20.	4	2	15	14	19	35	63	63	67	54

21.	14	5	33	41	19	17	45	55	53	50
22.	37	17	68	82	26	36	26	28	11	5
23.	5	2	13	7	17	9	72	65	61	85
24.	17	5	33	56	16	30	70	51	27	26
25.	31	29	59	81	8	25	14	24	6	9
26.	11	5	33	27	46	52	62	67	16	17
27.	22	8	44	23	30	41	48	81	24	15
28.	20	8	63	76	33	46	46	29	16	9
29.	32	21	69	51	32	40	25	47	10	9
30.	101	54	42	84	10	13	14	15	2	2
31.	3	X	18	11	33	26	68	82	46	49
32.	7	8	34	25	13	55	79	71	31	9
33.	15	14	53	48	24	24	42	72	24	10
34.	13	12	40	48	16	23	71	62	28	28
35.	6	6	12	5	7	5	62	89	81	63
36.	61	40	68	71	13	22	13	28	12	7
37.	5	11	18	20	18	26	49	82	78	29
38.	108	56	51	90	2	14	5	5	2	3
39.	15	9	7	17	11	11	40	61	95	70
40.	76	22	64	69	19	67	2	13	7	3
41.	8	4	25	37	40	38	69	80	26	9
42.	75	55	80	104	6	4	3	5	4	X
43.	19	15	59	46	30	40	51	60	9	7
44.	26	18	72	68	34	50	26	28	10	9
45.	29	1	77	64	41	77	18	26	3	X
46.	38	19	98	75	3	25	19	45	10	4

47.	7	8	29	56	29	49	50	51	38	10
48.	26	16	85	34	14	16	29	85	14	17
49.	47	32	88	78	10	17	18	12	10	14
50.	17	16	39	56	12	20	46	43	54	33
51.	64	22	64	66	6	13	21	52	33	15
52.	82	69	46	68	5	12	22	15	13	4
53.	15	11	30	28	9	7	59	101	55	21
54.	14	1	27	21	12	15	70	95	25	36
55.	72	74	72	67	5	4	11	18	8	3
56.	58	79	59	58	25	20	25	8	6	3
57.	10	5	34	28	18	37	85	70	21	28
58.	50	48	105	102	6	12	6	3	1	3
59.	73	68	84	93	3	5	7	2	1	X
60.	78	17	85	97	8	30	1	23	1	1
61.	65	87	66	67	16	7	16	7	5	X
62.	9	1	22	14	20	36	80	93	37	24
63.	93	69	91	98	3	1	X	X	1	X
64.	62	71	76	89	10	5	19	8	1	1
65.	64	58	90	108	10	8	4	4	X	X
66.	56	30	95	86	12	36	6	16	X	X
67.	88	35	100	111	14	8	17	12	2	2
68.	94	88	65	80	2	3	3	1	4	1
69.	10	7	55	46	49	57	42	51	12	6
70.	6	8	9	16	27	45	93	80	38	19
71.	110	79	52	79	2	4	3	3	1	3

72.	43	61	107	90	11	13	5	3	2	X
73.	46	9	93	84	21	67	8	4	X	4
74.	87	68	74	97	5	4	2	4	X	X
75.	60	64	102	96	3	8	2	X	1	X
76.	26	11	59	43	40	67	39	46	4	1
77.	51	45	105	87	2	11	9	25	1	X
78.	6	7	30	31	18	8	87	100	27	22
79.	7	10	27	53	23	24	86	70	25	11
80.	76	50	87	108	2	2	X	6	3	X
81.	20	5	74	55	28	67	35	39	11	2
82.	56	31	82	86	21	31	6	18	3	2
83.	7	11	25	37	18	46	97	67	21	7
84.	28	8	72	44	18	52	40	63	10	1
85.	47	37	106	115	5	11	7	5	3	X
86.	36	49	78	94	33	16	16	8	5	1
87.	33	13	80	92	28	37	24	26	3	1
88.	49	33	99	109	10	23	9	8	2	1
89.	37	15	82	79	18	18	30	54	1	6
90.	17	11	45	53	24	32	69	65	13	7
91.	66	42	78	69	2	9	14	46	8	8
92.	3	2	X	4	2	10	53	93	110	54
93.	5	1	29	27	27	78	72	30	35	12
94.	53	41	86	112	23	27	1	2	X	X
95.	52	44	101	118	10	14	8	X	3	1
96.	21	1	46	62	31	63	45	33	25	9
97.	19	13	82	97	23	47	35	21	9	X

98.	14	4	58	25	20	42	62	84	14	13
99.	89	74	67	83	1	2	9	7	2	2
100.	6	9	47	45	38	78	54	39	23	2
101.	49	18	83	84	21	56	13	9	2	1
102.	10	1	50	17	24	29	74	101	10	20
103.	8	1	33	29	16	15	74	87	87	36
104.	12	4	23	47	11	16	82	76	40	25
105.	8	3	23	24	35	65	73	74	29	2
106.	9	7	42	62	37	60	68	34	12	5
107.	27	6	23	52	8	25	58	69	52	16
108.	80	70	69	78	7	8	5	12	7	X

Final items selected are as follows:-

	Items	SA	A	U	D	SD
1.	The future of a Nation is in the hands of the teacher.	270	66	5	0	5
2.	Teachers can make or mar the future of the children.	230	96	6	2	2
3.	One takes up teaching only when he fails to get any other job.	7	20	26	137	146
4.	The main reason for the falling of educational standards is the poor salaries of teachers.	110	140	33	38	15
5.	Better wages for teachers will lead to better teaching.	155	126	33	29	4

6.	A teacher's job does not require hard work.	12	17	12	151	144
7.	Teachers get mental satisfaction by teaching their students.	180	184	10	8	4
8.	Any body can teach if he knows a little more than pupils.	15	48	27	165	61
9.	One who wants to be a teacher must know some of the basic principles of education.	141	177	8	9	1
10.	Experiences of practice-teaching programme make the teacher's job easy.	102	189	4	0	1
11.	Present course in Basic Training College is very useful for preparing the primary teachers.	139	165	15	27	2
12.	Psychology contributes directly to the knowledge of the pupils growth and development.	177	193	18	8	X
13.	Hindi is the National Language, hence Hindi should be included in the course for training of teachers.	189	131	6	6	4
14.	To become an efficient teacher one should learn Educational Psychology.	140	171	9	6	0
15.	Through the practice-teaching experiences one can develope the skill in methods of teaching subjects.	124	198	11	2	1
16.	Knowledge of 'Teaching-Methods' enables teachers to teach effectively.	96	192	18	34	1
17.	The programme of practice teaching is a waste of time and ener energy.	5	4	12	151	164
18.	Daily prayer, community kitchen and self-help activities in the hostel inculcate trails necessary for a democratic way of life.	94	198	50	3	0

"TEACHING IS THE NOBLEST OF PROFESSION AND THE SORRIEST OF TRADES."

John Milton

ANALYSIS, CLASSIFICATION AND INTERPRETATION OF DATA

CHAPTER V

ANALYSIS, CLASSIFICATION, AND INTERPRETATION OF DATA

The attitude inventory was administered to the pupil-teachers of Government Teacher Training Institution (for Elementary teachers), Alipur and Darya Ganj, were collected to check the hypothesis that the favourable or unfavourable attitude towards teaching profession and training programme is to be determined by these factors. Wherever possible, the coefficient of correlation between the scores of attitude test and other particular variable was calculated. However, mean, median, standard deviation and the "t" value of all four groups also calculated in order to know the significance of difference between the two means, basing all statistical calculation on the twenty items given in the annexure.

The following statistics are reported in different tables:-

(See table on p/33)

Table 4

Computation of the Mean, Median and Standard Deviation of Score for 99 (Ist Year) trainees (Boys) of Government Teachers Training Institution, Alipur 1966-67

Score	f	x'	fx'	fx^2	Cumulative frequency
40-42	1	-4	-4	16	1
43-45	3	-3	-9	27	4
46-48	10	-2	-20	40	14
49-51	16	-1	-16	16	30
52-54	21	0	0	0	51
55-57	23	+1	+23	23	74
58-60	11	+2	+22	44	85
61-63	8	+3	+24	72	93
64-66	4	+4	+16	64	97
67-69	2	+5	+10	50	99
Sum (N)	99		46	352	

(1) Mean = $A + \left(\frac{\Sigma fx'}{N}\right) \times i$

$= 53 + \left(\frac{46}{99}\right) \times 3$

$= 53 + \frac{46 \times 3}{99}$

$= 53 + 1.394 = M = 54.394$

(2) Median $= l + \left(\frac{\frac{N}{2} - F}{fm}\right) \times i$

$= 51.5 + \left(\frac{49.5 - 30}{21}\right) \times 3$

$= 51.5 + \left(\frac{19.5}{21}\right) \times 3$

$= 51.5 + (.93) \times 3$

$= 51.5 + 2.79 \qquad = Md = 54.29$

(3) Standard Deviation $= i\sqrt{\frac{N \Sigma fx^2 - (\Sigma fx)^2}{N}}$

$= 3\sqrt{\frac{352}{99} - \left(\frac{46}{99}\right)^2}$

$= 3\sqrt{3.5555 - .2159}$

$= 3\sqrt{3.3396}$

$= 3 \times 1.83 \qquad = SD = 5.49$

Table 5

Computation of the Mean, Median and Standard Deviation of Score for 99 (Ist Year) Trainees (Girls) of Government Teachers Training Institution, Darya Ganj, 1966-67

Score	f	x'	fx'	fx^2	Cumulative frequency
37-39	1	-5	-5	25	1
40-42	1	-4	-4	16	2
43-45	-	-3	-	-	2
46-48	4	-2	-8	16	6
49-51	11	-1	-11	11	17
52-54	27	0	0	0	44
55-57	24	+1	24	24	68
58-60	9	+2	18	36	77
61-63	16	+3	48	144	93
64-66	3	+4	12	48	96
67-69	3	+5	15	75	99
Sum (N)	99		89	395	

(1) Mean $= A + \left(\frac{\Sigma fx}{N}\right) \times i$

$= 58 + \left(\frac{89}{99}\right) \times 3$

$= 58 + \frac{89 \times 3}{99}$

$= 58 + 2.697$ $= M = 55.697$

(2) Median $= l + \left(\frac{\frac{N}{2} - F}{f_m}\right) \times i$

$= 54.5 + \left(\frac{49.5 - 44}{24}\right) \times 8$

$= 54.5 + \left(\frac{5.5}{24}\right) \times 8$

$= 54.5 + 0.69 \qquad = Md = 55.19$

(3) Standard Deviation $= i \sqrt{\frac{N \Sigma fx^2 - (\Sigma fx)^2}{N}}$

$= 8 \sqrt{\frac{395}{99} - \left(\frac{88}{99}\right)^2}$

$= 8 \sqrt{3.9899 - .8903}$

$= 8 \sqrt{3.0991}$

$= 8 \times 1.76 \qquad = SD = 5.28$

FIGURE - 1

Comparison of Distribution of Scores on the Attitude Inventory Administered on Ist Year Male and Female Pupil-teachers.

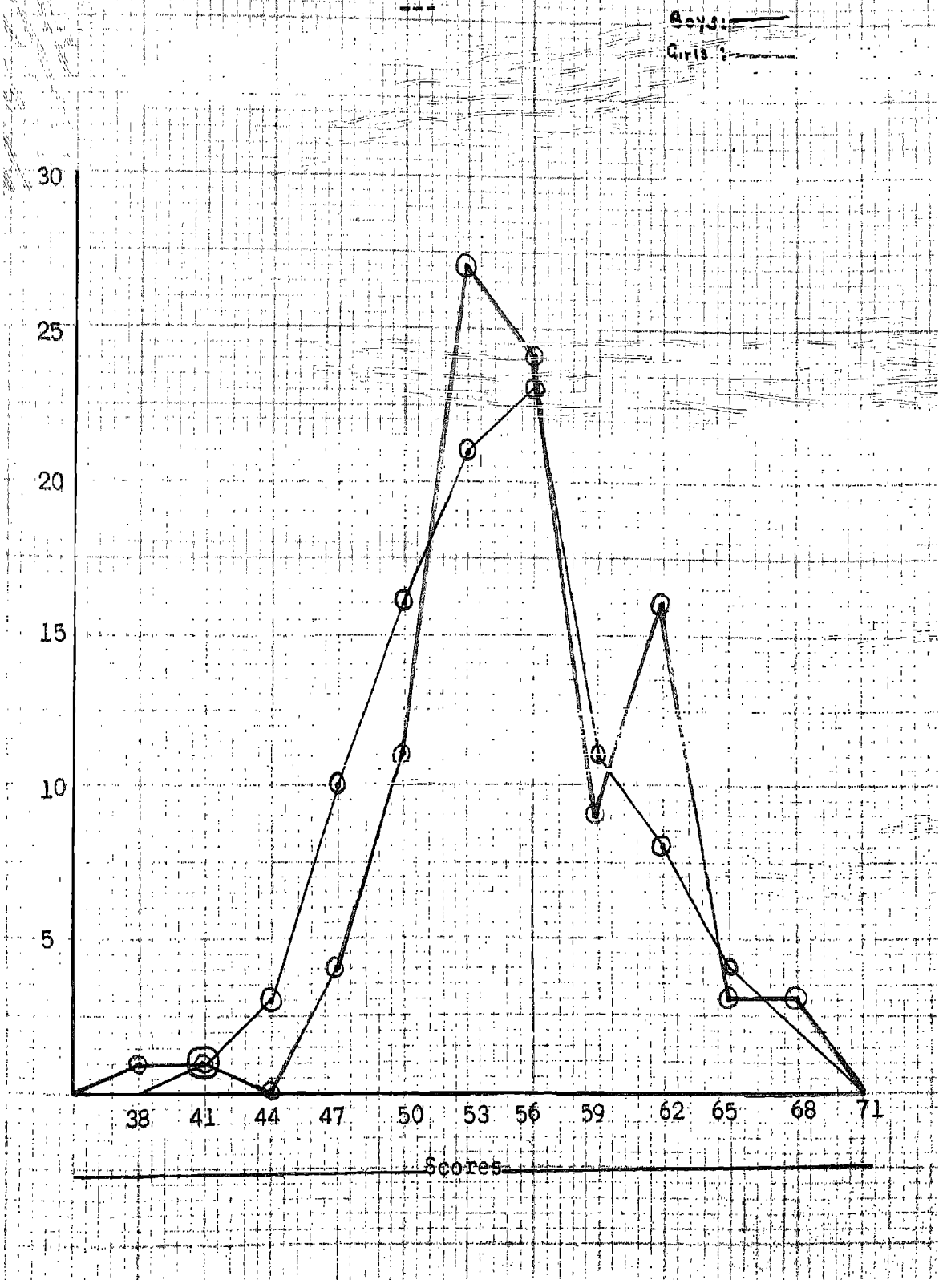

Table 5

Computation of the Mean, Median and Standard Deviation of Score for 69 (2nd Year) trainees (Boys) of Government Teachers Training Institution, Alipur, 1966-67

Score	f	x^1	fx^1	fx^2	Cumulative frequency
40-42	-	-	-	-	-
43-45	4	-3	-12	36	4
46-48	9	-2	-18	36	13
49-51	13	-1	-13	13	26
52-54	19	0	0	0	45
55-57	13	+1	+13	13	58
58-60	9	+2	+18	36	67
61-63	2	+3	+ 6	18	69
64-66	-	-	-	-	-
67-69	-	-	-	-	-
Sum (N)	69		-6	152	

(1) Mean = $A \pm \left(\frac{fx}{N}\right) \times i$

= $53 - \frac{6 \times 3}{69}$ = 53 - .261

= 53 - 261 = M = 52.739

(2) Median $= l + \left(\frac{\frac{N}{2} - F}{fm} \right) \times i$

$= 51.5 + \left(\frac{34.5 - 26}{19} \right) \times 3$

$= 51.5 + \frac{34.5 - 26}{19} \times 3$

$= 51.5 + 1.34$ $= Md = 52.84$

(3) Standard Deviation $= i \sqrt{\frac{N \sum fx^2 - \left(\sum fx^2 \right)}{N}}$

$= 3 \sqrt{\frac{152}{69} - \left(\frac{6}{69} \right)^2}$

$= 3 \sqrt{2.2028 - .0045}$

$= 3 \sqrt{2.1983}$

$= 3 \times 1.48$

$= SD = 5.44$

Table 6

Computation of the Mean, Median and Standard Deviation of Score for 69 (IInd Year) Trainees (Girls) of Government Teachers Training Institution, Darya Ganj, 1966-67

Score	f	x'	fx'	fx^2	Cumulative frequency
37-39	-	-	-	-	-
40-42	-	-	-	-	-
43-45	3	-3	-9	27	3
46-48	7	-2	-14	28	10
49-51	8	-1	-8	8	18
52-54	19	0	0	0	37
55-57	15	+1	-15	15	52
58-60	8	+2	16	32	60
61-63	5	+3	15	45	65
64-66	4	+4	16	64	69
67-69	-	-	-	-	-
Sum (N)	69		31	219	

(1) Mean $= A + \left(\frac{\Sigma fx}{N} \right) \times 1$

$= 53 + \left(\frac{31}{69} \right) \times 3$

$= 53 + \frac{31 \times 3}{69}$

$= 53 + 1.348$ $= M = 54.348$

(2) Median $= l + \left(\frac{\frac{N}{2} - f}{fm} \right) \times i$

$= 51.5 + \left(\frac{34.5 - 18}{18} \right) \times 3$

$= 51.5 + \left(\frac{16.5}{18} \right) \times 3$

$= 51.5 + 2.73 \qquad = Md = 54.23$

(3) Standard Deviation $= i \sqrt{N \Sigma fx^2 - (\Sigma fx)^2}$

$= 3 \sqrt{\frac{219}{69} - \left(\frac{31}{69} \right)^2}$

$= 3 \sqrt{3.1739 - .2025}$

$= 3 \sqrt{2.9714}$

$= 3 \times 1.72 \qquad = SD = 5.16$

FIGURE - II

Comparison of Distribution of Scores on the Attitude Inventory Administered on IInd Year Male and Female Pupil-teachers.

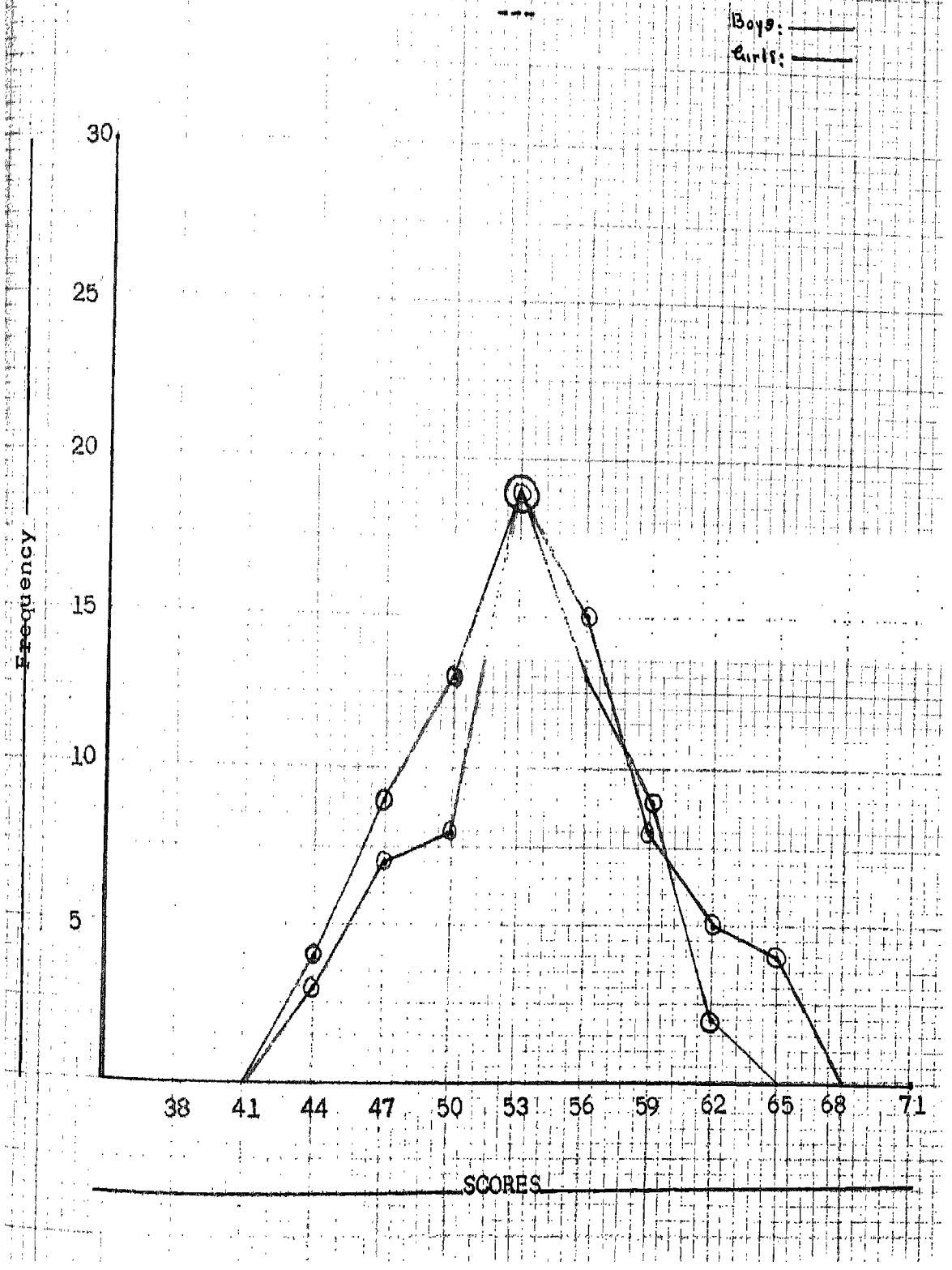

Table 7

Showing the Mean, Median and Standard Deviation of different groups of pupil-teachers

	I-st Year		IInd Year	
	Boys N=99	Girls N = 99	Boys N=69	Girls N=69
Mean	54.39	55.70	52.74	54.35
Median	54.29	55.19	52.84	54.29
Standard Deviation	5.49	5.29	5.44	5.16

Table 8

Computation of Co-efficient of Correlation
Ist Year Boys Scores (x) and Ist Year Girls Scores(y)

Ist Year Boys	Ist Year Girls
$x = 5969$	$y = 5515$
$x^2 = 294119$	$y^2 = 310057$
$xy = 299141$	

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2}\ \sqrt{N\Sigma y^2 - (\Sigma y)^2}}$$

$$r = \frac{299141 - \frac{5969 \times 5515}{99}}{\sqrt{(294119 - (\frac{5969}{99})^2)}\ \sqrt{(310057 - (\frac{5515}{99})^2)}}$$

$$r = \frac{299141 - 299091.2}{\sqrt{(294119 - 291173.3)(310057 - 307224.4)}}$$

$$r = \frac{49.8}{\sqrt{2945.7 \times 2832.6}} = \frac{49.8}{\sqrt{8049419.82}}$$

$$r = \frac{49.8}{2837}$$

r 1= .0176

Table 9

Computation Co-efficient of Correlation
IInd Year Boys Scores (x), and IInd Year Girls Scores(y)

IInd Year Boys	IInd Year Girls
$x = 3649$	$y = 3738$
$x^2 = 194967$	$y^2 = 204482$
$xy = 197850$	

$$r = \frac{N\Sigma xy - \Sigma x \Sigma y}{\sqrt{N\Sigma x^2 - (\Sigma x)^2}\ \sqrt{N\Sigma y^2 - (\Sigma y)^2}}$$

$$r = \frac{197850 - \frac{3649 \times 3738}{53}}{\sqrt{\left(194967 - \left(\frac{3649}{53}\right)^2\right)\left(204482 - \left(\frac{3738}{53}\right)^2\right)}}$$

$$r = \frac{197850 - 197680.6}{\sqrt{(194967 - 192974)\,(204482 - 202502.0)}}$$

$$r = \frac{169.4}{\sqrt{1993 \times 1980}}$$

$$r = \frac{169.4}{\sqrt{2758140}}$$

$$r = \frac{169.4}{1660.8} = .1020$$

$$r = .1020$$

Table 10

Computation Coefficient of Correlation
Boys Scores (x) and Girls Scores (y)

Ist Year & IInd Year Boys	Ist Year & IInd Year Girls
$x = 9018$	$y = 9253$
$x^2 = 499496$	$y^2 = 514539$
$xy = 496991$	

$$r = \frac{N \Sigma xy - \Sigma x \Sigma y}{\sqrt{N \Sigma x^2 - (\Sigma x)^2}\ \sqrt{N \Sigma y^2 - (\Sigma y)^2}}$$

$$r = \frac{496991 - \frac{9018 \times 9253}{165}}{\sqrt{\left(499496 - \frac{(9018)^2}{165}\right)\left(514539 - \left(\frac{9253}{165}\right)^2\right)}}$$

$$r = \frac{496991 - 496697.8}{\sqrt{(499496 - 494073.4)(514539 - 509631.0)}}$$

$$r = \frac{303.2}{\sqrt{4412.6 \times 4909.0 \times 4909.0}}$$

$$r = \frac{303.2}{\sqrt{21657040.80}}$$

$$r = \frac{303.2}{4653.7} = r = .0652$$

$$r = .0652$$

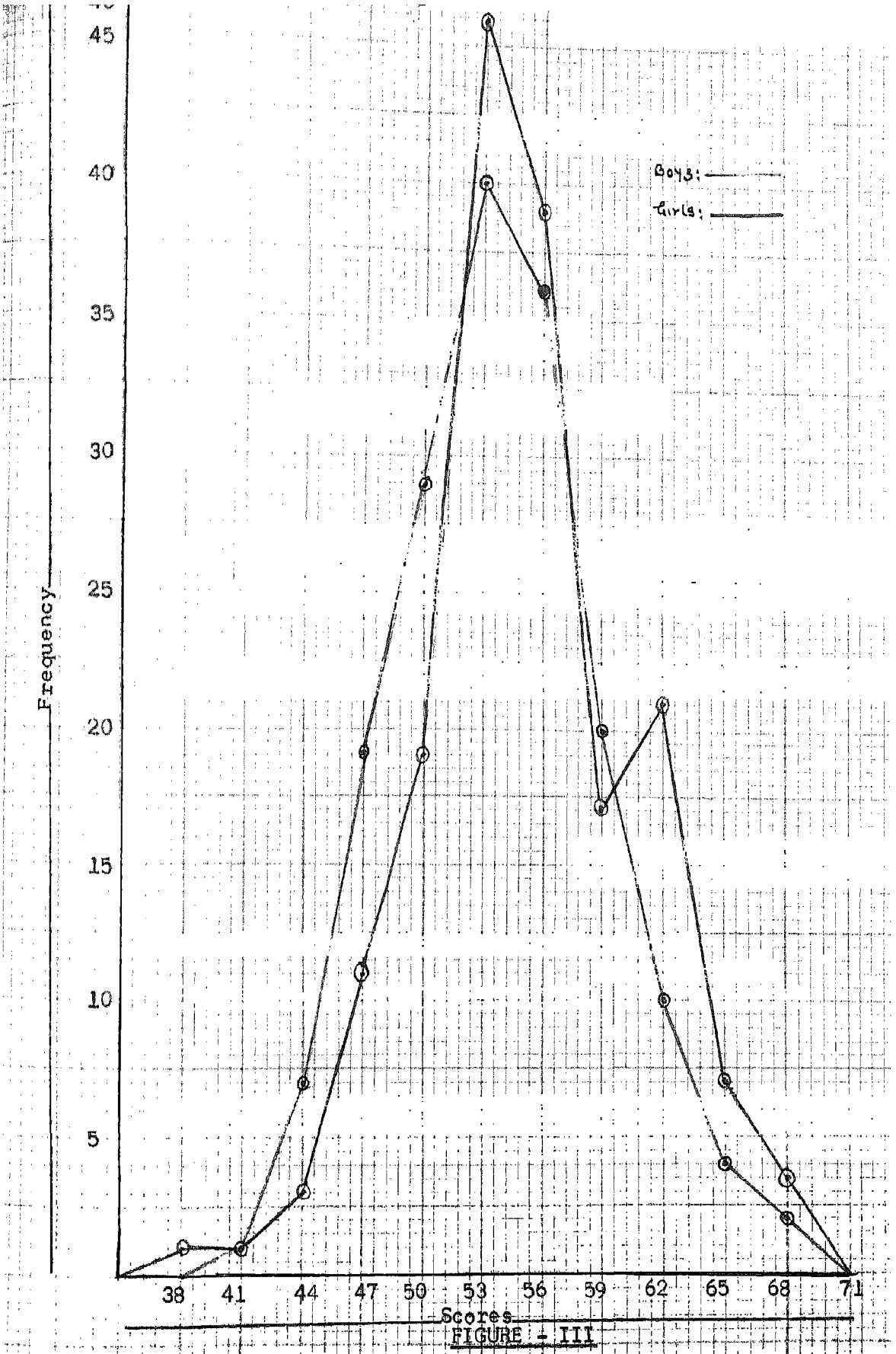

FIGURE - III

Comparison of Distribution of Scores on the Attitude Inventory Administered on Male and Female pupil-teachers for both the years.

Table 12

Computation of Significant Difference in Mean Scores between (Boys and Girls) the two Groups

Score	Boys (Ist & IInd Year)				Girls (Ist & IInd Year)			
	f	x'	fx'	fx^2	f	x'	fx'	fx^2
37-39	-	-5	-	-	1	-5	-5	25
40-42	1	-4	-4	16	1	-4	-4	16
43-45	7	-3	-21	63	3	-3	-9	27
46-48	19	-2	-38	76	11	-2	-22	44
49-51	29	-1	-29	29	19	-1	-19	19
52-54	40	0	0	0	46	0	0	0
55-57	36	+1	36	36	39	+1	39	39
58-60	20	+2	40	80	17	+2	34	68
61-63	10	+3	30	90	21	+3	63	189
64-66	4	+4	16	64	7	+4	28	112
67-69	2	+5	10	50	3	+5	15	75
Sum (N)168			40	504	168		120	614

Boys

$$\text{Mean} = 53 + \frac{40 \times 3}{168} = 53 + .71 = 53.71$$

$$SD = 3\sqrt{\frac{504}{168} = (.24)^2} = 3\sqrt{13 - .06}$$

$$= 3 \times 1.71 = 5.13$$

Girls

$$\text{Mean} = 53 + \frac{120 \times 3}{168} = 53 + 2.14 = 55.14$$

$$SD = 3\sqrt{\frac{614}{168} - (.71)^2} = 3\sqrt{3.65 - .50}$$

$$= 3 \times 1.77 = 5.31$$

Significance of difference between Means

(1) **1st Year Boys and Girls**

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{x_1} + \frac{\sigma_2^2}{x_2}}} = \frac{54.39 - 55.70}{\sqrt{\frac{(5.49)^2}{99} + \frac{(5.28)^2}{99}}}$$

$$= \frac{1.31}{\sqrt{.3044 + .2816}} = \frac{1.31}{\sqrt{.5860}} = \frac{1.31}{.77}$$

$= 1.70 < 1.96$ - Insignificant at 1%, and Significant at 5%

(2) **Second Year Boys and Girls**

$$t = \frac{52.74 - 54.35}{\sqrt{\frac{(5.44)^2}{69} + \frac{(5.16)^2}{69}}} = \frac{1.61}{\sqrt{.4289 + .3859}}$$

$$= \frac{1.61}{\sqrt{.8148}} = \frac{1.61}{.90}$$

$= 1.79 < 1.96$ - Insignificant at 1%, and Significant at 5%

(3) **Boys and Girls**

$$t = \frac{53.71 - 55.14}{\sqrt{\frac{(5.13)^2}{168} + \frac{(5.31)^2}{168}}} = \frac{1.43}{\sqrt{.324}}$$

$$t = \frac{1.43}{.57} = 2.55 > 1.96$$

Significant at 1% level.

Table 13

Computation of Significant Difference in Mean Scores between Ist Year Boys and Girls

Score	f	x'	fx'	fx^2	Cumulative frequency
37-39	1	-5	-5	+25	1
40-42	2	-4	-8	+32	3
43-45	3	-3	-9	+27	6
46-48	14	-2	-28	+56	20
49-51	27	-1	-27	+27	47
52-54	48	0	0	0	95
55-57	47	+1	+47	47	142
58-60	20	+2	40	80	162
61-63	24	+3	72	216	186
64-66	7	+4	28	112	193
67-69	5	+5	25	125	198
Sum (N)	198		135	747	

(1) Mean $= 53 + \frac{135 \times 3}{198} = 53 + 2.05 = 55.05$

(2) SD $= 1\sqrt{\frac{747}{198} - \left(\frac{135}{198}\right)^2}$

$= 3\sqrt{3.8 - .5}$

$= 3\sqrt{3.3}$

$= 3 \times 1.80 = SD = 5.4$

Table 14

Computation of Significant Difference in Mean Scores between IInd Year Boys and Girls

Score	f	x'	fx'	fx^2	Cumulative frequency
37-39	0	-5	0	-	-
40-42	0	-4	0	-	-
43-45	7	-3	-21	63	7
46-48	16	-2	-32	64	23
49-51	21	-1	-21	21	44
52-54	38	0	0	0	82
55-57	28	+1	28	28	110
58-60	17	+2	34	68	127
61-63	7	+3	21	63	134
64-66	4	+4	16	64	138
67-69	0	+5	0	0	-
Sum (N)	138		+25	371	

(1) Mean = $53 + \frac{25 \times 3}{138}$

= $53 + .504$ = 53. 504

(2) SD = $1\sqrt{\frac{371}{138} - (\frac{25}{138})^2}$

= $3\sqrt{2.7 - .003}$

= $3\sqrt{2.697}$

= 3 x 1.6 = SD = 4.8

Significance of Difference between Means of Ist Year and IInd Year Pupil-Teachers

$$t = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{x_1} \quad \frac{\sigma_2^2}{x_2}}}$$

$$= \frac{55.05 - 53.504}{\sqrt{\frac{(5.4)^2}{198} + \frac{(4.8)^2}{138}}}$$

$$= \frac{1.546}{\sqrt{.14 + .16}}$$

$$= \frac{1.546}{\sqrt{0.30}} = \frac{1.546}{\sqrt{.30}}$$

$$= \frac{1.546}{.55}$$

$$t = \frac{1.546}{.55} = 2.8 > 1.96$$

Significant at 1% level.

Discussion of Results

1. From the above analysis it can safely be inferred that the attitude of first year boys and girls differ significantly.

2. Similarly second year boys and girls also differ as far as the attitude towards teaching profession and training programme is concerned.

3. When total group of boys (Ist and IInd year) was compared with the total group of girls (Ist and IInd year) the result showed that the attitude differ even at 1% level of confidence. This goes in favour of the first hypothesis that there is difference in the attitude of boys and girls (male and female pupil-teacher). Therefore, the hypothesis is sustained.

4. When total groups of Ist year (boys and girls) and IInd year (boys and girls) were compared it was found that the two groups differ significantly (at 1% level).

Hence, the hypothesis that the Ist year and IInd year pupil-teachers differ in their attitudes towards teaching profession and training programme, is sustained.

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APPENDIX 'A'

Appendix -I

Esteem Madam/Sir,

I have undertaken a project to study the "Attitude of the Pupil-Teachers towards the Teaching Profession and the Training Programme", as part fulfilment of the Diploma Course in Elementary Teacher Education conducted by the Department of Teacher Education, National Council of Educational Research and Training, Delhi.

I have framed a five point inventory for the purpose. As a pilot study I am administering it to the pupil-teachers in T.T.I's of Delhi Administration.

I feel, I am fortunate enough to seek opportunity to get guidance from your honour, who is one of the experts in the field of education in the country.

Hence, I am submitting a copy of my inventory for your perusal and hope you will encourage me with your valuable comments and suggestions.

With best personal regards,

Yours sincerely,

(S.R. CHINT-COTY)
TEACHER EDUCATOR
(UNDER TRAINING)
DEPARTMENT OF TEACHER EDUCATI
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Frequencies on Each Finally Selected Items

ITEM NO	CLASS	SA	A	U	D	SD
1	I B	69	28	1	1	x
	I C	67	28	3	1	x
	II B	46	20	2	x	1
	II C	49	20	x	x	1
2	I B	84	12	2	x	1
	I C	74	24	1	x	x
	II B	57	10	1	x	1
	II C	55	10	1	x	3
3	I B	3	6	11	45	34
	I C	2	2	6	29	60
	II B	2	7	6	27	27
	II C	x	5	3	36	25
4	I B	49	34	3	9	5
	I C	21	43	20	11	4
	II B	33	25	5	5	1
	II C	8	38	5	13	5
5	I B	54	28	6	10	2
	I C	36	44	6	10	1
	II B	47	14	4	4	x
	II C	18	40	5	5	1
6	I B	4	9	7	40	39
	I C	5	x	4	46	44
	II B	2	3	x	22	42
	II C	1	5	1	43	19
7	I B	43	46	3	3	4
	I C	34	57	4	4	x
	II B	32	34	3	x	x
	II C	21	47	x	1	x
8	I B	12	26	7	33	21
	I C	x	10	13	46	30
	II B	2	1	5	37	24
	II C	1	11	2	49	6
9	I B	47	44	6	1	1
	I C	9	55	25	9	1
	II B	26	41	2	x	x
	II C	8	42	5	14	x
10	I B	40	57	2	x	x
	I C	49	55	1	x	x
	II B	33	34	1	x	1
	II C	26	43	x	x	x

(Contd.)

ITEM No.	CLASS	SA	A	U	D	SD
11	I B	42	47	2	7	1
	I C	49	48	x	1	1
	II B	20	29	8	12	x
	II C	22	41	5	1	x
12	I B	39	50	8	2	x
	I C	39	53	6	1	x
	II B	25	40	2	2	x
	II C	14	50	2	3	x
13	I B	60	34	2	2	1
	I C	50	43	3	2	1
	II B	50	19	x	1	x
	II C	29	36	1	1	2
14	I B	54	40	5	x	x
	I C	42	53	4	x	x
	II B	33	34	x	2	x
	II C	21	44	x	4	x
15	I B	39	56	3	1	1
	I C	37	54	8	x	x
	II B	22	46	x	1	x
	II C	27	42	x	x	x
16	I B	32	55	1	8	x
	I C	28	52	7	12	x
	II B	19	47	1	1	1
	II C	17	35	4	18	x
17	I B	1	x	2	31	65
	I C	x	x	7	50	40
	II B	2	x	x	22	45
	II C	2	2	3	48	14
18	I B	35	52	11	1	x
	I C	18	62	19	x	x
	II B	18	34	12	x	x
	II C	28	50	8	2	x
19	I B	27	59	5	5	3
	I C	25	64	14	x	x
	II B	25	42	5	3	1
	II C	19	54	4	x	
20	I B	20	52	15	11	1
	I C	12	50	32	5	x
	II B	29	31	6	2	1
	II C	6	34	24	4	

Appendix -1

1st Year Boys & Girls Scores on Attitude Inventory

SR. NO	BOYS	GIRLS	SR. NO	BOYS	GIRLS
1	57	53	26	55	68
2	52	57	27	50	62
3	49	54	28	51	54
4	56	59	29	52	48
5	65	55	30	58	38
6	58	46	31	57	57
7	49	54	32	49	55
8	52	58	33	62	59
9	57	54	34	55	57
10	51	55	35	49	55
11	63	63	36	63	54
12	56	47	37	45	53
13	52	61	38	56	61
14	52	61	39	50	41
15	52	51	40	51	67
16	54	50	41	53	58
17	58	52	42	46	52
18	59	50	43	55	54
19	48	56	44	40	65
20	61	54	45	47	51
21	59	55	46	62	54
22	54	54	47	48	62
23	52	64	48	48	47
24	48	50	49	49	57
25	49	62	50	60	49

(CONTD.)

SL. NO	BOYS	GIRLS	SL. NO	BOYS	GIRLS
51.	56	52	76.	62	60
52.	53	51	77.	58	51
53.	55	56	78.	67	57
54.	54	56	79.	58	69
55.	58	52	80.	55	52
56.	61	50	81.	54	66
57.	56	49	82.	52	55
58.	49	61	83.	56	52
59.	52	62	84.	54	59
60.	56	58	85.	51	61
61.	58	55	86.	48	50
62.	49	61	87.	49	56
63.	50	58	88.	68	68
64.	56	59	89.	68	63
65.	56	52	90.	63	63
66.	55	53	91.	58	55
67.	55	61	92.	56	55
68.	57	57	93.	50	57
69.	55	54	94.	64	65
70.	66	55	95.	48	62
71.	54	57	96.	43	59
72.	54	59	97.	58	56
73.	51	52	98.	47	53
74.	58	59	99.	64	57
75.	55	68.			

IInd Year Students Scores

Sl. No.	Boys	Girls	Sl. No	Boys	Girls	Sl. No.	Boys	Girl
1.	44	47	24.	57	64	47.	54	60
2.	57	43	25.	52	59	48.	58	46
3.	56	50	26.	53	65	49.	56	53
4.	54	55	27.	43	49	50.	53	61
5.	60	59	28.	45	49	51.	54	52
6.	50	63	29.	46	59	52.	63	55
7.	61	53	30.	49	54	53.	54	60
8.	50	62	31.	52	55	54.	52	53
9.	49	57	32.	57	52	55.	53	57
10.	52	57	33.	56	44	56.	58	59
11.	59	54	34.	57	52	57.	55	46
12.	46	57	35.	51	49	58.	51	46
13.	60	61	36.	46	56	59.	50	57
14.	54	52	37.	46	46	60.	50	47
15.	57	58	38.	52	50	61.	51	66
16.	56	50	39.	58	51	62.	50	52
17.	45	52	40.	48	55	63.	59	56
18.	54	46	41.	51	58	64.	48	52
19.	60	54	42.	54	53	65.	52	56
20.	52	59	43.	58	61	66.	55	55
21.	56	55	44.	52	53	67.	53	66
22.	46	55	45.	47	50	68.	53	53
23.	51	53	46.	57	54	69.	52	45

APPENDIX "B"

95.	By teaching science in the training course trainees are benefited in understanding new approach to the subject.	SA	A	U	D	SD
96.	Too much money is being spent on the training compared to the benefit derived out of it.	SA	A	U	D	SD
97.	Community activities in the hostel lead to group rivalries.	SA	A	U	D	SD
98.	The present training course is out of date.	SA	A	U	D	SD
99.	Mathematics which is taught in the training course is very useful and helpful for the trainees in teaching their own pupils in the school.	SA	A	U	D	SD
100.	Hostel life is a hindrance to the individual's growth.	SA	A	U	D	SD
101.	The main reason for falling of standards in education is the fall in moral and ethical standards.	SA	A	U	D	SD
102.	For teaching in basic schools the present science course does not enrich any knowledge.	SA	A	U	D	SD
103.	Teacher training programmes do not prepare good teachers for modern times.	SA	A	U	D	SD
104.	There is nothing much to learn during training in Basic Training College.	SA	A	U	D	SD
105.	Hostel life does more harm than good to the community.	SA	A	U	D	SD
106.	Though it is important to develop ability to think creatively, to be self directing, to work co-operatively, yet teachers have not learnt to achieve those goals.	SA	A	U	D	SD
107.	Mostly trainees are not interested in training course because there is surety of job.	SA	A	U	D	SD
108.	Education is a weapon whose effect depends on the teachers work.	SA	A	U	D	SD